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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,279	10/17/2001	Robert L. Myers	10018377	4647

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

ALPHONSE, FRITZ

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 10/05/2004

2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,279

Applicant(s)

MYERS, ROBERT L.

Examiner

Fritz Alphonse

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-16 is/are allowed.
- 6) ☒ Claim(s) 1 and 17-20 is/are rejected.
- 7) ☐ Claim(s) 2-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paff (U.S. Pat. No. 5,553,064) in view of Decuir (U.S. Pat. No. 5,781,028).

As to claim 1, Paff (fig. 1) shows a bi-directional high speed video data transmission system, comprising: a first transmitter (12) operative to receive and transmit a first video data stream; a data pair (i.e., the entertainment signal lines for movies, games, and the like; col. 2, lines 27-32) connected to the transmitter (12), operative to relay the first video data stream from the transmitter; a receiver (26) connected to the data pair and operative to receive the first video data stream relayed by the data pair; a return transmitter (28) operative to transmit the return video data stream. Paff discloses a data pair (i.e., voice and video data; 34) connected to the return transmitter (28), operative to relay the return serial video data stream from the transmitter; and a return receiver (30) connected to the return data pair and operative to receive the return video serial data stream.

Paff does not disclose a first and second summing resistor connected to a data pair, the first and second summing resistor operative to convert a current transmitted across the data pair to a DC return current.

However, in the same field of endeavor, Decuir (fig. 8A) shows a bi-directional high speed data bus system, wherein a first and second summing resistor connected to a data pair, the first and second summing resistor operative to convert a current transmitted across the data pair to a DC return current (col. 10, lines 3-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Paff's bi-directional cable transmission with bi-directional USB system, as disclosed by Decuir. Doing so would provide an AC termination, while eliminating eliminate a direct current pathway, thus reducing DC current demand in the system (col.2, lines 4-10).

As to claims 17-20, method claims 17-20 correspond to apparatus claim 1; therefore, they are analyzed as previously discussed in claim 1 above.

Allowable Subject Matter

Claim 13 is allowed because none of the cited references either singular or in combination discloses "a second data pair comprised of the third and fourth data line and having a first and second end, the second data pair connected to the second transition-minimized differential signaling transmitter at the first end, the second data pair further connected to a second transition-minimized differential signaling receiver at the second end, the second data pair operative to relay the second video data stream from the second transmitter to the second receiver; the second transition-minimized differential signaling receiver operative to receive and output the second video data stream; a third summing resistor connected to the third data line; a fourth summing resistor connected to the fourth data line; the third and fourth summing resistors comprising a second summing pair operative to merge the alternating current across the third and

fourth data lines to form a DC final current; wherein the DC return current and the second DC current are the same; and wherein the third data line functions as a DC return channel”.

Claims 14-16 are allowable by virtue of dependency.

Claim 2-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In addition, as to claim 2, none of the cited references either singular or in combination discloses “a return data pair comprises a first and second return data line; and the return transmitter transmits the return video data stream by switching the DC return current between the first and second return data line, thus creating a first and second AC return current on the first and second return data line”.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shin et al. (U.S. Pat. No. 5,974,464) disclose a system for speed serial video signal transmission using DC-balanced coding.

Podlesny et al. (U.S. Pat. No. 6,366,130) disclose a high speed low power data transfer scheme.

Martin (U.S. Pat. No. 6,564,269) discloses a bi-directional data transfer using video blanking period in a digital data system.

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

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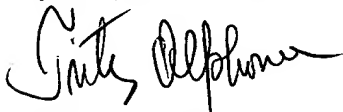
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (703) 308-8534. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (703) 305-9595.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

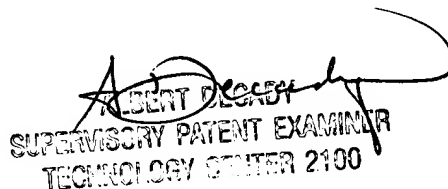
Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Fritz Alphonse

Art Unit 2133

September 27, 2004



ALBERT DE CADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100